

To: Smith, Terry[Smith.Terry@epa.gov]; StClair, Christie[StClair.Christie@epa.gov]; Mattas-Curry, Lahne[Mattas-Curry.Lahne@epa.gov]
Cc: Grantham, Nancy[Grantham.Nancy@epa.gov]; Beach, John[Beach.John@epa.gov]; Stralka, Daniel[Stralka.Daniel@epa.gov]; Allen, HarryL[Allen.HarryL@epa.gov]; Kappelman, David[Kappelman.David@epa.gov]
From: Guria, Peter
Sent: Thur 11/12/2015 7:12:14 PM
Subject: R9 Surface Water and Sediment Data Collected from the SJR on 10/05, 10/08, and 10/12 to Load
[R09 Sediment SummaryTable 10 0508 2015.xlsx](#)
[R09 Sediment SummaryTable 1012 2015.xlsx](#)
[R09 SurfaceWater SummaryTable 10 0508 2015.xlsx](#)
[R09 SurfaceWater SummaryTable 10292015.xlsx](#)

This data submission presents data for surface water and sediment samples collected on 10/05, 10/08, and 10/12 from the San Juan River. This data is ready to be posted on EPA.GOV/GOLDKINGMINE. These are the last data sets for Region 9 San Juan River sampling activities as part of the Gold King Mine response.

Note: Region 9 has reviewed the Level 4 data packages for these sample results from the SJR. We've also reviewed the packages and other information from the sampling event with the START contractor field team. Based on the lab and field QA/QC and all the other information we have, it appears the data is valid. The sampling team did note that turbidity in the SJR was high and sediment was present in the water on the days the samples were collected.

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Human Health Screening:

The reported concentrations of metals in San Juan River sediment samples collected on 10/05/ and 10/08, and 10/12 were compared to the health-based screening levels for a 64-day recreational exposure developed by R8 for this incident. **All metals in San Juan River sediment concentrations were below the recreational sediment screening levels.**

The reported dissolved and total concentrations of metals in surface water collected on 10/05, 10/08, and 10/12 were compared to the health-based screening levels for a 64-day recreational exposure developed by R8 for this incident; the dissolved metals concentrations were also compared to federal MCLs. **MCLs were exceeded for arsenic, beryllium and lead for the following dates and locations:**

10/05

Total Arsenic: Exceeded the MCL in 4 samples from 3 locations: SJLP, SJMC and 2 from SJMH

Total Beryllium: Exceeded the MCL in 2 samples from 1 location: SJMH

Total Lead: Exceeded the MCL in 4 samples from 3 locations: SJLP, SJMC and 2 from SJMH

10/08/15

Total Arsenic: Exceeded the MCL in 2 samples, SJ4C and SJMH

Total Beryllium: Exceeded the MCL in 4 samples: SJ4C, SJMC, SJMH, SJSR

Total Lead: Exceeded the MCL in 4 samples: SJ4C, SJMC, SJMH, SJSR

10/12/15

Total Arsenic: Exceeded the MCL in 2 samples, both from SJMH

Total Beryllium: Exceeded the MCL in 2 samples, both from SJMH

Total Lead: Exceeded the MCL in 3 samples from 3 locations: SJ4C, SJMC, and 2 from SJMH

Navajo Nation Agricultural & Livestock Screening Levels:

The reported dissolved and total concentrations on metals in surface water collected on 10/05, 10/08, and 10/12 were compared to current Agricultural and Livestock Watering screening levels developed by the Navajo Nation Water Quality Program. **Sample results revealed no exceedances for agricultural or livestock use.**

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Ecological Screening:

Surface Water samples collected on 10/05 and 10/08 exceeded the available ecological benchmarks for the following metals/locations/dates:

Surface Water collected 10/05/15: The reported exceedances of ecological screening levels are:

Dissolved Aluminum exceeding chronic and acute NRQWCs in 2: SJLP and SJMC

Dissolved Aluminum exceeded the chronic NRQWC in 2 samples: SJMH and SJSR

Dissolved Barium exceeding acute NRQWC (no chronic values are available) in 6 samples from 5 locations: SJ4C, SJLP, SJMC, 2 from SJMH and SJSR

Dissolved Cadmium exceeding the chronic NRQWC in 4 samples from 3 locations: SJLP, SJMC, 2 from SJMH

Dissolved Copper exceeding chronic and acute NRQWCs in 1 sample: SJMC

Dissolved Copper exceeding the chronic NRQWC in 1 sample: SJLP

Surface Water collected 10/08/15: The reported exceedances of ecological screening levels are:

Dissolved Aluminum exceeding chronic and acute NRQWCs in 2: SJMC and SJMH

Dissolved Aluminum exceeded the chronic NRQWC in 1 sample: SJ4C

Dissolved Barium exceeding acute NRQWC (no chronic values are available) in 6 samples from 5 locations: SJ4C, SJLP, SJMC, 2 from SJMH and SJSR

Dissolved Copper exceeding chronic and acute NRQWCs in 1 sample: SJ4C

Dissolved Copper exceeding the chronic NRQWC in 1 sample: SJMC

Dissolved Lead exceeded the chronic NRQWC in 2 samples: SJMC and SJMH

Dissolved Manganese exceeding acute NRQWC (no chronic value is available) in 1 sample: SJMC

Surface water collected 10/12/15: The reported exceedances of ecological screening levels are:

Dissolved Aluminum exceeding chronic and acute NRQWCs in 1 samples: SJ4C

Dissolved Barium exceeding acute NRQWC (no chronic values are available) in 6 samples from 5 locations: SJ4C, SJLP, SJMC, 2 from SJMH and SJSR

Sediment: None of the sediment samples collected on 10/05, 10/08, and 10/12 from the San Juan River exceeded the project Sediment Quality Criteria for ecological effects.

Pete Guria, Chief

Operations & Scientific Support Section

USEPA Region 9

415-972-3043

guria.peter@epa.gov